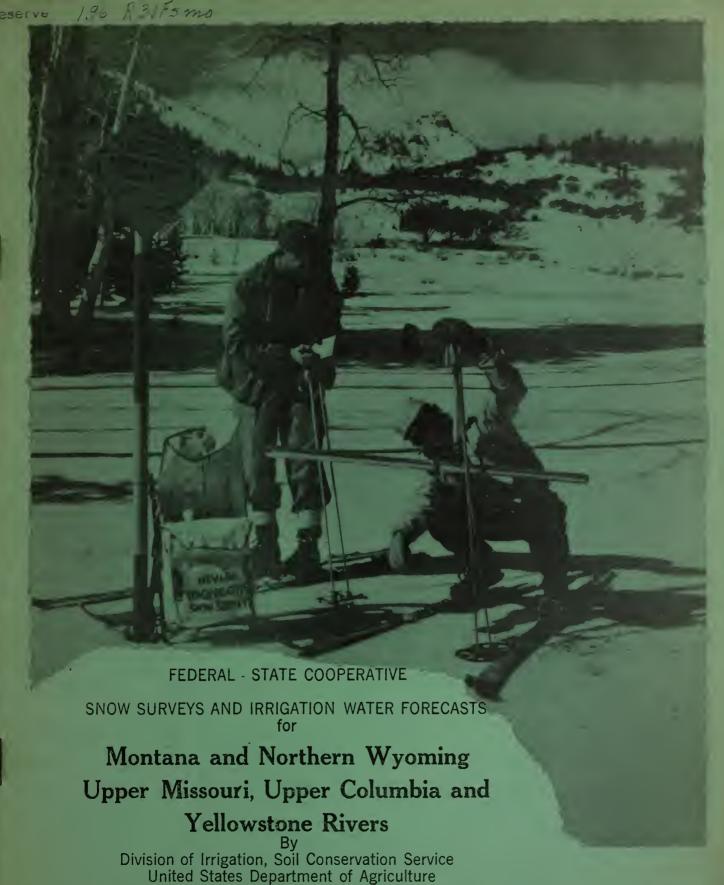
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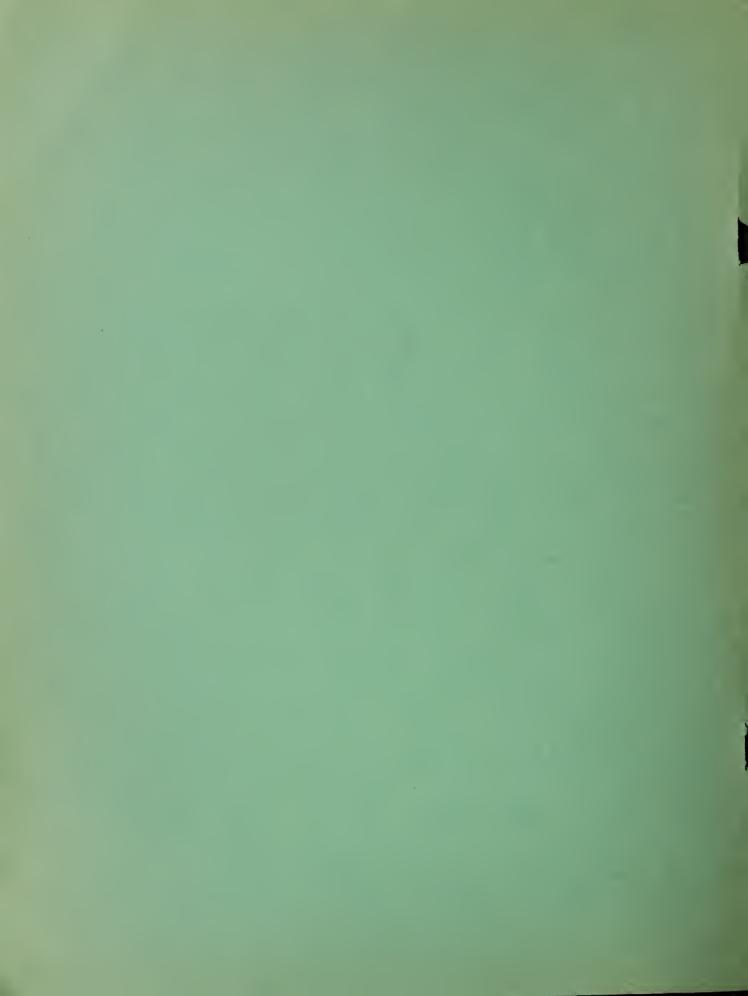
United States Department of Agriculture and

Montana Agricultural Experiment Station

Cooperation with the U.S. Forest Service U.S. Geological Sun

In cooperation with the U. S. Forest Service, U. S. Geological Survey, National Park Service, U. S. Bureau of Reclamation, State Engineers of Montana and Wyoming and other Federal, State and local organizations.

As of MAY 1, 1952



FEDERAL -- STATE COOPERATIVE SNOW SURVEYS

AND

IRRIGATION WATER FORECASTS

FOR

MONTANA AND NORTHERN WYOMING

Upper Misscuri and Upper Columbia River
Basins

Report Prepared by

Ashton R. Codd: Hydraulic Engineer Soil Conservation Service

and

O. W. Monson: Irrigation Engineer Montana Agricultural Experiment Station

Division of Irrigation Soil Conservation Service

and

Montana Agricultural Experiment Station Bozeman, Mont.



IRRIGATION WATER SUPPLY OUTLOOK FOR 1952 SEASON AS OF MAY 1, 1952

Snow survey measurements made on or about May 1 indicated that the HIGH elevation snow is holding in good shape. The above average temperatures and below average precipitation in April has depleted the low elevation snow fields. Very little snow remains below 5500 feet elevation. Stream flow has been high during April and will remain high as the snowmelt season continues during May and June. Seasonal stream flow forecasts have been adjusted downward by * virtue of the lack of precipitation during April and the pro-* spects of a light precipitation figure for May. The fact that the soil under the pack was not frozen at any time during the winter months has had considerable effect on the probable seasonal runoff. The Wind River Basin in Wyoming has felt the early spring * melt season where snow depths and water content has dropped * abnormally. The Popo Agie River Basin was not effected too severely by virtue of the heavy snow pack in that area.

JEFFERSON RIVER: Although only a few snow survey courses were measured on the Jefferson, the high elevation snow is still intact. It is anticipated, due to the lack of April precipitations of the seasonal runoff, the stream flow will be 10 to 15% less than anticipated on the first of April.

MADISON RIVER: Madison River snow survey courses were measured on May 1 and found to be approximately the same percent of average as on April 1. The forecast for the Madison River at West Yellowstone was dropped from 211,000 to 168,000 acre feet for the May-September season.

GALLATIN RIVER: The Gallatin River snow survey courses on May 1 indicate considerable drop in water content; as a result the May-September forecast was dropped from 553,000 to 502,000 acre feet.

MISSOURI RIVER MAIN STEM: Due to the lack of April precipitation and probable deficiency in May precipitation, it is anticipated that the Main Missouri will flow approximately 116% average during the May-September period.



UPPER YELLOWSTONE RIVER: Snow survey measurements made on May first in Yellowstone Park have dropped slightly in their percent of average as of May first, due to the early runoff season and lack of precipitation during April. The forecast for Yellowstone River at Corwin Springs was dropped from 2,237,000 to 1,902,000 for the May-September period.

LOWER YELLOWSTONE RIVER IN WYOMING: Snow survey measurements over the Wind and Popo Agie River have not changed from April to May in respect to their percentage of averages. The Wind River is still a little short, while the Popo Agie is still a little high in respect to normal for May 1.

COLUMBIA RIVER IN MONTANA: Snow survey measurements on or about April 1 in the headwaters of the Columbia River in Montana indicate that there is still a good water supply as of May 1. Forecasts of stream flow have been dropped slightly all along the main stem to the Idaho boundary. The abnormally warm weather which occurred earlier in April, together with the lack of precipitation and unfrozen ground beneath the snow pack has reduced the seasonal forecast by approximately 20 percent. The April-September forecast for the South Fork of the Flathead near Columbia Falls was reduced from 2,751,000 to 2,135,000 acre feet. The April-September seasonal flow for the Flathead River at Columbia Falls was reduced from 7,104,000 to 5,728,000 acre feet. The April-September seasonal flow of the Clark Fork at Herron was reduced from 14,232,000 to 12,004,000 acre feet.

* * * * * * * *



MAY 1, 1952
MISSOURI RIVER BASIN IN MONTANA
PRELIMINARY ESTIMATES OF SEASONAL RUNOFF
(1000's gore ft.)

NAME OF STREAM AND STATION	Season May-June	Season July-Aug-Sept.	Season May-Sept.	% 10 yr. Average 1941-50
Gallatin River at Gallatin Gateway Gallatin River at Logan Madison River at West Yellowstone North Fork Musselshell at Delphine Judith River near Utica Yellowstone River at Corwin Springs Big Hole at Melrose	337.4 356.0 97.0 97.0 1,237.0 433.0	164.4 139.0 71.0 1.1 13.2 665.0	501.8 495.0 168.0 4.1 58.9 1,902.0	118 117 98 180 131 103 88
LOWER YELLOWSTONE RIVER (WYOMING)	April-June	April-Sept.	%10	%10 yr. avg.
Little Popo Agie at Hudson	3 3 8 1	2h°89		120
ropo Agie near Kiverton North Fork Popo Agie near Lander	1/0°0/ 1/	124.0		162
Wind Kiver at Kiverton Shoshone River below Buffalo Bill Shoshone River near Byron	267.5 489.9 320.0	916.8 620.0		141
Middle Fork Powder near Kaycee	46,8	56.9		71
Tongue River near Dayton Tongue River at Acme	105.5	133.7		117
Goose Creek near Sheridan	67.1	79.5		110



MAY 1, 1952

REVISED FORECASTS

COLUMBIA RIVER BASIN IN MONTANA
PRELIMINARY ESTIMATES OF SEASONAL RUNOFF
(1000's acre feet)

NAME OF STREAM AND STATION	Sesson April-July	% 10 yr. Average 1941-50	Season April-Sept.	%10 yr. Average 1941-50
North Fork Flathead near Belton Middle Fork Flathead near Belton South Fork Flathead near Columbia Falls Flathead River at Columbia Falls Flathead River at Polson	1,526 1,577 2,018 5,230 5,283	102 105 102 102	1,674 1,693 2,135 5,728 5,881	99 105 102 104
Clark Fork above Bonner Black Foot at Bonner Clark Fork above Missoula Bitterroot River at Darby Clarks Fork below Missoula Clarks Fork at St. Regis	834 765 1,599 676 3,403 4,570	117 129 123 143 124 150	912 893 1,805 714 3,679 4,910	119 124 118 141 121
Clarks Fork at Plains Clark Fork at Herron	10,159 10,915	115	11,132	112 117

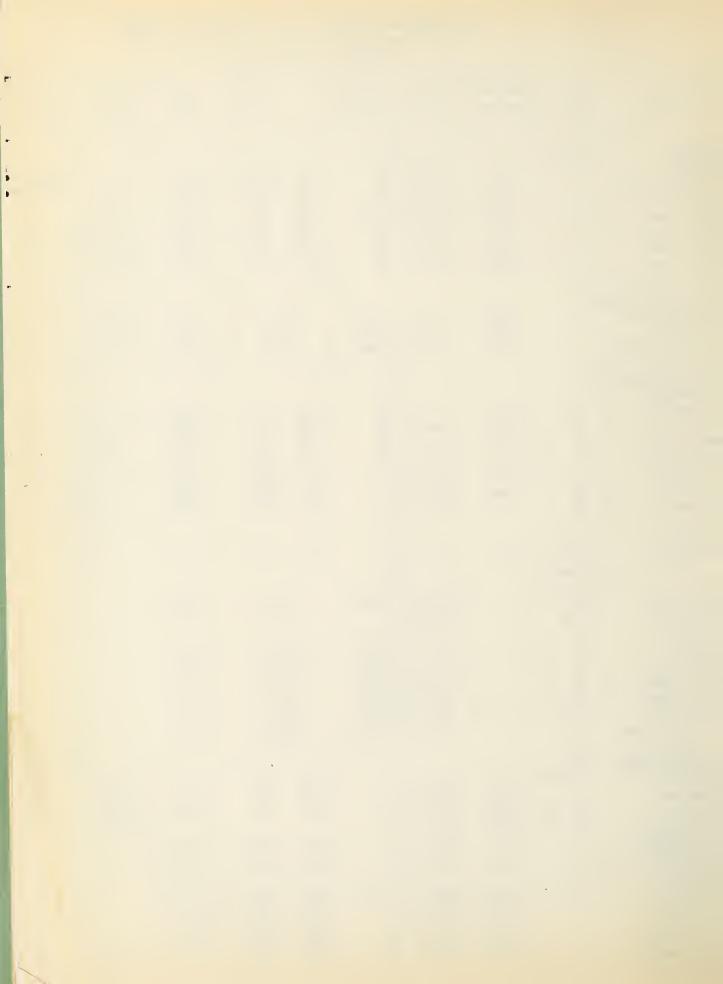


INDEX TO MONTANA & NORTHERN WYOMING SNOW COURSES

IND	ŁX	TO			IAN	IA	& NC	OKIHE	KN WYC)MII	NG	SN				RSES	
Drainage Baein and Course Name	Montana Number	Elev.	Sec. Lat.	Twp.	Range Long.	Recerd Began	Measuring Dates	Reasured By:	Preinage Basin and Course Name	Mentana Number		Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates	Measured By: b
JEFFERSON RIVER	MISS	ЭЦКІ	RIVER		AINA					ssour		ER D	RAIN		CON		
(ROCK-BEAV WHEAD)									BIG NORN RIVER Wyn	oming							
Lakeview Ridge Lakeview Canyen Limekiln White Pine Ridge (HOPSE PRAIRIE)	1153 1154 1252 1251	7400 6930 6950 8850	27 26 5 18	14S 14S 15S 14S	2W 2W 9W 9W	1948 1948 1948 1948	3,4,5 3,4,5 3,4 3,4	9 9 1 1	Seavers Mill Owl Creek Tensleep R.S. Timber Creek Ranger Creek Wood River	9F8 8F1 753 962 761 9F7	8900 B700 8300 8800 8800 8000	6 36 30 25 32 28	43N 43N 49N 47N 53N 46N	102% 101W 86W 103W 88W 103W	1948 1948 1935 1948 1935 1939	2,3,4,5 2,3,4,5 4,5 4,5 4,5 2,3,4,5	12 12 1 12 1 12
Bloody Dick Cold Stene Lemhi Pase Terrell Creek Trail Creek	13016 1309 1381 13012 1382	7600 8100 7480 6650 7090	12 11 9 14 15		16W 16W 15W 15W	1948 1948 1948 1948 1948	3,4 3,4 3,4 3,4 3,4	1 1 1 1 1 1	(SHOSHONE RIVER) W East Entrance Sylvan Pass	yoming 10E6 10E5	7000 7100	17 12	52N 52N	109W 110W	1948 1936	1,2,3,4,5	5 5
Selway Junction (BIG NOLS) Bip Nole Pase	13011	7440	27	8S 3S	15W	1948	3,4	1	TONGUE RIVER Wyom Big Goose Burgeee Ranger Sta Dome Lake	7E2 7E4 7E5	7700 7900 8800	4 36 11	53N 56N 53N	86W 89W 87W	1935 1950 1950	2,3,4,5 2,3,4,5 2,3,4,5	1 12 12
Big Nole Pass (Belo Fast Boundary Gibbons Pasz Jahnke Creed Miner Forks Miner Lake	w)13D4 13D5 13D2 13D8 13D6 13D7	6900 6700 7100 7340 7300 6720	24 22 4 25 24 10	3S 3S 2S 7S 6S 6S	18W 17W 19W 16W 17W 16W	1948 1948 1934 1948 1948 1945	3,4 3,4 2,3,4,5 3,4 3,4 3,4,5	1 1,2 1 1	Lodgepole POWDER RIVER North Pewder Muddy Pass	9 EL 7 E8 7 E7	82 0 8500 9700	32 5 11	56N 47N 48N	106W 85W 85W	1940 1951 1950	2,3,4,5	12
(WISE RIVER) Andersen Mdw. Fik Norn	13 h 14 13D15	7000 8450	18 15		12W 12W	1948 1934	3,4 3,4,5	1 2	Seldier Park Sour Dough Red Fork	756 651 751	8500 7000	36 17 18	51N 49N 43N	85W 84W 85W	1950 1936 1936	2,3,4,5 2,3,4,5 2,3,4,5	12 1 12
(RUBY RIVER) Cottonweed	13013	6300 5900	24	2S 10S	12W 3W	1948	3,4	1									
Cetterwood (Upper) Flachlight Tebacce Root	11 E 1 12D3 12D2	8400 6950 6900	30 22 13	10S 8S 4S	2W 7W 3W	1948 1945 1948	3,4 3,4,5 3,4	1 1 1	KOOTENAI RIVER		COLUN	/BIA	RIVE	R B	ASIN		
Vigilante MADISON RIVER Nebgen	1101	6125	28	9S 11S	3₩ 3.E	1948	1,2,3,4,5	2	Bares Mountain Blue Bird Basin Red Mountain	15Bl 14Al 15Al	6000 6800 6000	1 24 4	25N 37N 36N	31# 26W 29W	1937 1937 1937	4,5 4,5 3,4,5	1 1 1
West Yellowstone Nerrie Basin	11E7 10E2	6700 7500	446-441	138	5E 110°-421	1934 1935	1,2,3,4,5	5,6	PLATHEAD RIVER	3.0001			1.001	201	2052	2215	,
GALLATIN RIVER Devil's Slide Nood Meadow Mystic Lake New World 21-Mile	1004 1003 1002 1001 1186	8100 6600 6600 6700 7150	14 22 30 24 1	58 48 38 38 118	6E 6E 7E 6E 5E	1935 1934 1935 1939 1934	3,4,5 3,4,5 2,3,4 2,3,4,5 1,2,3,4,5	2,6 2,6 6,7 6,7	Baein Creek Big Creek Brush Creek Cettle Queen Desert Mountain NellRearing Divide Hulbrook Kiehenehn	13B13	5000 6750 5000 4700 5600 5770 4530 4300	11 6&7 13 7 24 35 18 7	19N 22N 30N 35N 31N 32N 21N 37N	12W 18W 26W 17W 19W 22W 13W 21W	1951 1941 1937 1939 1937 1942 1951 1946	2,3,4,5 3,4,5 3,4,5 3,4,5 1,2,3,4,5 3,4,5 2,3,4,5	1 1 5 1 1 5
MISSOURI RIVER MAIN Chessman Reserveir	STEM 1205	6200	2	8N	5W	1936	12216	. 2	Limeetone Pasa Logan Creek Mariae Pasa	13B8 14A5 13A5	7000 4300 5250	28 34 340	18N 30N 30N	12W 24W 14W	1948 1937 1934	3,4,5 3,4,5 1,2,3,4,5	1 2
Chessman Keserveir Crystal Lake Grasshepper Kings Nill Picnic Crounds Pipestone Pase Stemple Pase Ten Mile Creek, Midd Ten Mile Creek, Midd Ten Mile Creek, Uppe	9C1 10C2 10C1 12C6 12D1 12C1 erl2C2 lel2C3	6200 6100 7000 7950 6500 7200 6900 6250 6800 8000	24 19 35 22 11 16 13 13	12N 9N 13N 5N 1N 13N 8N 8N 8N	7W 17E 8E 7E 6W 7W 6W 6W	1936 1941 1938 1937 1940 1938 1934 1935 1934	1,2,3,4,5 3,4 3,4,5 2,3,4 2,3,4,5 3,4,5 1,2,3,4,5 1,2,3,4,5	1 2 3 1 2 2 2 2 2 2	Snow Lab. #16 Spotted Bear Mt. Strewberry Lake Trinkue Lake Trout Lake #2 Upper Wolland Lake Twin Creeke Quintonken	13A9 13B2 13B10 13B1 13B12	5200 7000 6500 6500 3600 7000 3580 3800	15 23 11 9 21 28 14	29N 25N 28N 25N 26N 26N 26N 26N	15W 15W 19W 17W 17W 16W 16W 17W	1946 1948 1948 1948 1948 1948 1951 1951	1,2,3,4,5 3,4,5 3,4,5 3,4,5 3,4,5 3,4,5 2,3,4,5 2,3,4,5	2 1 1 1 1 1 1 1 1 1 1 1
(TETON RIVER)									UPPER CLARK FORK El Dorado Mine	1309	7800	23	8N	1.2W	1946	4	11
Preight Creek Waldron Creek West Fork	12A1 12B2 12B1	6000 5600 6000	13 16 6	26N 25N 25N	10W 9W 9W	1948 1948 1948	3,4 3,4 3,4	1 1	Gold Creek Lake Intergaard North Fork Jocke Picnic Crounds Pipeetone Pass	1308 1304 1387 1206 1201	7200 6 650 6330 6500 7200	14 6 3 22 11	8N 5N 17N 5N 1N	12W 13W 17W 6W 7W	1946 1939 1941 1940 1938	4 2,3,4 3,4,5 2,3,4 2,3,4,5	11 3 4 3
(SUN RIVER) Bench Mark Cabin Creek 5-Bull Gatee Park Coat Mountain My Lake	1288 1286 1289 1285 1287 1389	5500 5400 5600 5300 7000 7300	9 33 36 31 20 21	20N 23N 20N 24N 22N 23N	10W 10W 10W 10W 10W	1948 1949 1948 1949 1934 1950	3,4 3,4 3,4 3,4 3,4	1 1 1 1 2	Rainy Lake Slide Rock Mountai Southern Croes Stemple Pase Sterm Lake Ho. 2 Stuart Mill Stnart Mountain #1 Coyote Nill	1305 1301 1207 1306	4300 7100 6500 6900 7780 6500 7400 4200	11 26 9 16 19 19	18N 10N 5N 13N 4N 5B 14N 18N	16W 16W 13W 7W 13W 13W 16W	1947 1937 1939 1934 1939 1939 1936 1951	3,4,5 4 2,3,4 3,4,5 4 2,3,4 4 3,4,5	1 3 2 1 3
Wrong Creek Ridge Wreng Creek (MARIAS RIVER)	12B3 12B4	6800 5700	17 32	25N 25N	10%	1949 1949	3,4	1	FEND OREILLE RIVER Barce Meuntain Freezeout Submit	1381	6000 6800	1 21	25 N 15 N	31W 27W	1937 1951	14.5 14	1 1
Mariae Paee Snow Lab. #16 (MILK RIVER)	13A5 13A9	5250 5200	34 15	30N 29N	17A 17A	1936 1947	1,2,3,4,5	2	Heedoo Creek BITTERROOT RIVER East Ferk Ranger Str	1301	6200 5L00	9&16 16	1LN 2N	27W	1937	L.	1
Rocky Boy (MUSSELSHILL RIVER) Crasshepper	9A1	7000	15	28N 9N	16E 8E	1941	3,4	7	Gibbons Pass Mud Creek Pasture Nesperes Camp Nesperes Fass	1302 1401 1402 1401	7100 1500 5580 6575	19420 32 30	28 11 N 18 28 N 6 N	19W 2LW 23W 16E 17W	1934 1937 1937 1937	2,3,4,5 3 4 4	1 1 1 1 1
(UPPER YELLOWSTONE) Camp Senia Canyon Cooke City Crevice Pt. Independence Lake Camp Lupine Creek	901 10E3 10D7 10D5 10D6 10E4 10E1	7890 7750 7400 8400 8000 7850 7300	25 29 22 44°-34° 44°-56°	8S 1 9S 9S 7S 11	18E 1100-301 114E 9E 12E 100-241	1037 1938 1937 1935 1941 1937 1938	1,2,3,4,5 1,2,3,4,5 3,4 3,4 1,2,3,4,5 1,2,3,4,5	1 12 5 1 12 12 12 5	Skalkahe Summit	13c3	7259				1937 ASIN		
(SHIFLDS RIVER)									ST. MARY RIVER	17.4	6000	98. 50*		130-121	1922	6	2.0
Porcupine LOWER YELLOWSTONE	1003	6500	10	4N	108	1938	3,4	1	Iceberg Lake Piegan Pase #4 Piegan Pase #6 Nount Allen #7	13A3 13A4 13A6 13A7	5000 L 6500 L 7000 L	80-16. 80-16.	1 1	130-L0: 130-L0:	1922 1922 1922	5 5 5 5	2,8 2,8 2,8 2,8
Crannier Feedows	10P2 9F6 9F10 9F9 9P2 9P3 9C2 9F14 9C3 9F11 9F5 9C1 10F1 Wyoming 8C2 8C4	9200 8800 10000 9500 8500 10000 9500 7500 9000 8400 9600	23 15 9 34 27 12 22 24 23 3 26 1 5 29	43N 38N 4N 42N 42N 41N 25 42N 1N 43N 28 42N 1AN 28 42N 43N 28 44N 43N 43N 43N 43N 43N 43N 43N	110W 107W 105W 105W 105W 106W 3W 106W 3W 107W 2W 1107W 2W 110W 110W 110W 100W 100W 100W 100W	1939 1948 1948 1948 1940 1948 1948 1940 1939 1940 1940 1949 1936	2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5 2,3,4,5	12 12 12 12 12 12 12 12 12 12 12 12 12 1	2. 0. 3. M. 4. U. 5. N. 6. M. 7. C. 8. D.	13A8 to Agence. B. Pores. S. Geoleontane Po. S. Indie etional F. Fontane Entry of Boominion F. S. Fich	refer to ry that se st Service sgicel Sur mer Compm to Service Park Service periment periment stem and and Wildl	eures t vey and ny se Btation Power B	y 1, Fe mow	oruny l	1922		2,8
Larsen Creek Sawmill Glade South Pass	9G4 8G1 6G3	9000 8500 9000	12 3 13	31.N	101W 101W	1948 1939 1939	3,4,5 2,3,4,5 2,3,4,5	12 12 12	11. De	erlodge	citizene rvetien S	Committ	00	sed a	2 J 01/7000	comm ass rests rests 5	,R-11,464.

SUPPLEMENTAL INDEX LIST OF SNOW SURVEY COURSES IN ADJACENT BASINS, USED IN THIS REPORT AND SHOWN ON THE INDEX MAP

1				SHOWN ON	THE INDEX MAP			
DRAINAGE AND SNOW COURSE	Adj. State No.	Montana Number	Elev. Feet	Section Lat.	Twp Range Long.	Record Began	Measure- ment Dates	Meas- ured By
JEFFERSON Kilgore Blue Ridge Mine Camp Creek Moose Creek Big Springs Island Park Valley View	Idaho 10 5 6 8 3 9	11E12 11E11 12E3 13D16 11E9 11E10 11E8	6200 6700 6800 6200 6500 3600 6500	6 27 21 22 - 27 34 28 7	12N 39E 13N 38E 13N 36E 27N 21E 19N 44E 13N 43E	1937 1938 1936 1937 1936 1936 1936	1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4,5 1,2,3,4	pd.obs. pd.obs. 1 1 10 10
UPPER YELLOWSTONE Lewis Lake Div. Aster Creek Tom Thumb Summit	Wyo. 9 2	10E9 10E8 10E7	7900 77 0 0 79 0 0	141=13 141=17 141=22	110-40 110-37 110-35	1919 1919 1949	1,2,3,4 1,2,3,4 3,4	10 10 10
LOWER YELLOWSTONE (Wind River) Togwotee Pass Kendall Loomis Park Yellow Jacket Black Rock Dutch Joe Mulligan Park	Wyo. 12 25 26 14 2 23 24	10F1 9F12 10F4 10F5 10F3 9G6 9G5	9600 7900 8500 6775 8600 8700	29 23 14 33 4 32 17	144n 110W 38n 110W 37n 111W 42n 112W 44n 111W 31n 104W 35n 108W	1936 1936 1942 1936 1936 1936	2,3,4,5 3,4,5 3,4,5 3,4,5 2,4,5 3,4,5	10 1 1 10 1
KOOTENAI Smith Creek Fernie Ridge New Fernie Gray Creek Kimberly Marble Canyon Nelson Creek Sinclair Pass Sullivan Mine Upper Elk River	Idaho 13 Canada 10 68 10A 34 20 32 19 8A 20A 41	16A1 % #\3;	4800 3500 5600 4100 5100 3800 5000 3050 4500 5100 4400	29 49-31 49-31 39-37 49-41 51-12 14-25 50-40 49-43 50-01	64N 3W 115-01 115-00 116-41 115-59 116-09 117-14 115-58 116-01 114-56	1937 1939 1952 1948 1945 1947 1938 1947 1945	4,5	1
UPPER CLARK FORK Coyote Hill 49 Meadows Lookout PEND OREILLE Mosquito Ridge Freezout #2 BITTERROOT Moose Creek Kit Carson Savage Pass Powell Pasture Packers Mdw.	Idaho 13B11 1 10 Idaho 9 Idaho 8 3 7 6 5	15B10 15B2 16Al ₄ 15B10 13D16 14D3 14Cl ₄ 15C3 14C2	4200 5000 5250 5110 6800 6200 4700 6000 3700 5700	12 6 4 5 21 22-27 4 18 27 15	18N 16W 143N 5E 147N 6E 54N 2E 15N 27W 27N 21N 27N 16E 36N 15E 27N 14E 38N 15E	1952 1937 1921 1937 1951 1937 1937 1937 1937	3,4,5 1,2,3,4,5 1,2,3,4,5 4,5 3,4,5 4 4,2,3,4,5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1



Reservoir Volumes in 1,000's a.f.

RESERVOIR	Location on or diversion from	Usable Cap- acity	Contents This Yr. May 1 1952	Contents Last Yr. May 1 1951	lO-year Average May 1 1941 to 1950
	B 1	04.00	01.0	70.0	62.6
Lima Reservoir	Beaverhead	84.00	84.0	72.0	
Ruby Reservoir	Ruby River	38.85		122 to 125	27.9
Willow Creek Reser.	Willow Creek	17.76			070
Hebgen Lake	Madison River	345.00	205.2	261.3	230.4
Ennis Lake	Madison River	41.00	38.4	29.9	33.6
Middle Creek Reser.	Hyalite Creek		#15 etb	(2) (2)	88
Lake Sewall	Missouri River	37.80	26.4	20.5	26.3
Hauser Lake (inc. Lake Helena	Missouri River	62.50	34.6	52.9	44.3
Lake Helena	Missouri River	10.45	2.2	7.2	3.8
Holter Lake	Missouri River	81.92	57.8	56.5	54.1
Gibson Reservoir	N.Fk. Sun River	105.00	92.6	81.7	69.9
Willow Creek Res.	N.Fk. Sun River	32.30	26.8	27.1	13.4
Pishkun Reservoir	N.Fk. Sun River	32.00	23.5	19.0	20.3
Bynum Reservoir	Teton River				
Lower Two Medicine Lake	Two Medicine River	14.00	0.0	0.0	3.3
Four Horns Lake	Badger Creek	20.00	7.7	8.6	8,5
Swift Reservoir	Birch Creek	30.00	30.2	30.2	26.2
Lake Francis	Dupuyer & Birch Cr.	112.00	98.8	102.2	87.2
Ackley Lake	Judith River	5.82		4.8	4.5
Durand Reservoir	N.Fk. Musselshell	7.01			
Martinsdale Reservoir	S.Fk. Musselshell	23.10			
Deadman Basin Reservoir	Musselshell River	52.50			
Fort Peck Reservoir		•	13,630.0	13,400.0	10,202.2
Fresno Reservoir	Milk River	127.20	133.1	132.5	76.5
Nelson Reservoir	Milk River	66.80	-550-	18.5	31.2
Mystic Lake	W. Rosebud Creek	20.80	2.9	1.3	3.4
Cooney Reservoir	Red Lodge Creek	27.50	18.3	16.5	14.3
Tongue River Reservoir	Tongue River	73.90	21.4	15.0	19.1
Sherburne Lake	Swiftcurrent Cr.	66.10		39.9	24.6
YELLOWSTONE RIVER BASIN, WY	OMING				
Buffalo Bill Reservoir	Shoshone River	456.60	233.7	236.2	271.0
Boysen Reservoir	Wind River	819.80	233.4		80
Pilot Butte Reservoir	Wind River	30.10	19.1	21.0	20.8
Bull Lake Reservoir	Wind River (Bull Cree	1 .	33.9	71.5	49.4
COLUMBIA DIMED DACIN				,,	1,7 - 1,7
COLUMBIA RIVER BASIN	Fig. Co1-	77.00	02./	03.1	07.1
Georgetown Lake	Flint Creek	31.00	21.6	21.4	21.4
E.Fk. Rock Creek Res.	E.Fk. Rock Creek	16.04	क्ष्म क	02 E3	C11 E12
Nevada Creek Res.	Nevada Creek	12.60	East time		
W. Fk. Bitterroot Res. Como Lake	W. Fk. Bitterroot Riv		00.0	26 6	10.0
	Rock Creek	34.80	20.8	16.6	18.9
Hungry Horse Reservoir	So.Fk. Flathead Riv.	3,000.00	216.7	000 6	01.0 3
Flathead Lake	Flathead River	1,791.00	1,212.0	990.6	949.1
Little Bitterroot	Little Bitterroot*	36.10	36.1	36.1	14.9
Dry Fork Reservoir	Dry Fork Creek*	6.70	6.4	5.8	4.2
Mission Valley Reservoir	Flathead Irr. Project		67.2	58.8	47.0
Lower Jocko Lake	Jocko Creek	7.6	2.6	∞ €	
* Sum of two reservoirs on					
* Sum of two reservoirs on					
** Sum of eight (8) reservo	irs on Project				



PRECIPITATION DATA FOR MAY 1, 1952 MONTANA

		Dept.	+1.10	+1,29	-0.50	-0.51	9700+	+5.93	-1,84	+1°05	5.06			61/20-	40,84	+0.14	+1.30	+2.72	+0.71	+1.97	+0°52	+0,85				-1.39	1	でいた。	2000	10000	-1,07	,
	Precip	Normal	8.99	4.19	6,28	5.53	16,16	19,82	99°6	21.45	13.01		7,61	100	5,38	1,39	4.57	5.83	5.67	14.56	11.47	7,12		3.78	3,73	8	v v v	2°(4	ريْ دين <u>-</u>	T 500	1,667	
	Accumo	1951-55	10,09	5,48	5.78	5.02	16,62	23.75	7,82	22.50	9.95			11,13	, cl 20,	14.53	5.87	8.10	6.38	16.53	11,99	7.97			* * * *	1,90	1	2°7.	4.51	7.00T	2,60	
1952	Dept. from	Normal	-0.51	-0.72	=1.24	-0.81	-1.23	-1.63	-0.92	-1.35	-1.26 -1.08			=0.83	*0°87	-0.76	06.0-	-0.79	-0.50	-1.60	29.0-	~0°87			-0.92	0.85	21°12	2/°0'	70°1	1,000 L	1,003	,
	<u></u>	Apro	0,48	0.34	0.01	90°0	0.27	0,65	0.03	0.33	0.18			0,16	0,30	0.37	0.37	0,53	09.0	0.24	2,12	0.59			0,16	0,04	20,0	ָט מליני	0, 10	00.0	0.1	ļ .
1952		Maro	0.39	1,46	1,12	0.39	1,13	2,55	1,13	1,71	1.24		0,18	0-17	0,76	1,27	0,48	0.57	0,99	2.05	1,36	0°97†		0.53		0.53	0°.15	0 1 1,1 1,0	0,00		0 0	
19		Feb.	0°79	0.85	8%	16.0	1,29	2,15	0.93	2,30	1.27		0.89	0.8	1,63	0.56	0,78	1,00	1.06	1.75	1,30	1.09		69.0	1,06	0.48	-	270	0°0° 20°0	1.00 7.70 7.70	78	,
		Jano	1.39	.29	°56	.31	2,51	4.35	.77	3.81	1.63		,25) <u></u>	27	15	,39	1,08	.19	3.34	1,22	.85		.41	,17	222	(6T°	7770	ָרֶר <u>-</u>	27	-
	on	Dec.	2,49	1,18	2,12	1,041	4.25	14.65	2,08	4°74	1.89		1,919	200	1,06	1,08	1,50	1,05	1.50	3,83	1,66	1,53		917°	°55	,27	Ĺ	が。	1214	9 8	100	,
1951	Precipi tati	Novo	æ.	017°	99°	.77	2,25	3,20	1.37	3,11	2.16		,21,	2,5	17,	.31	.67	847°	.57	1,66	°75	•59		.03	,27	00,00	מ י	9T.	0470	0,7	180	
	Prec	Oct.	3,63	%,0	.63	1,14	7,92	6.20	1.57	6.50	3.29		2,91	00,1	1,72	62.	1,68	3.74	1.77	3,66	3.58	2,21		.92	°53	649	55	သို့ 🔾	690	, co, c	837	
	Eleva	ation	-Fortine-3000	5533	5280	3529	3154	5213	4101	24,85	24,35		1,500	2,188	ort) 3664	3893		1485	6058	6999	6558			2255	2180	1962	24,28	5159	7577	2/02	750	
	Station		WEST OF DIVIDE -Fort	Butte (Airport)	Phillipsburg	Hamilton	West Glacier	Summit (Merias)	Ovando 1 SW	Trout Creek	Thompson Falls Average (8)	CEMTRAL DIVISION	Babb	Havre	Great Falls (Airport) 3661	Helena (Airport)	Lewistown (Airport)	Livingston	Wisdom	West Yellowstone		Average (9)	EASTERN DIVISION	Malta		Medicine Lake	Circle	2# salilia	Glonding	Ryondus Ve	Average (8)	



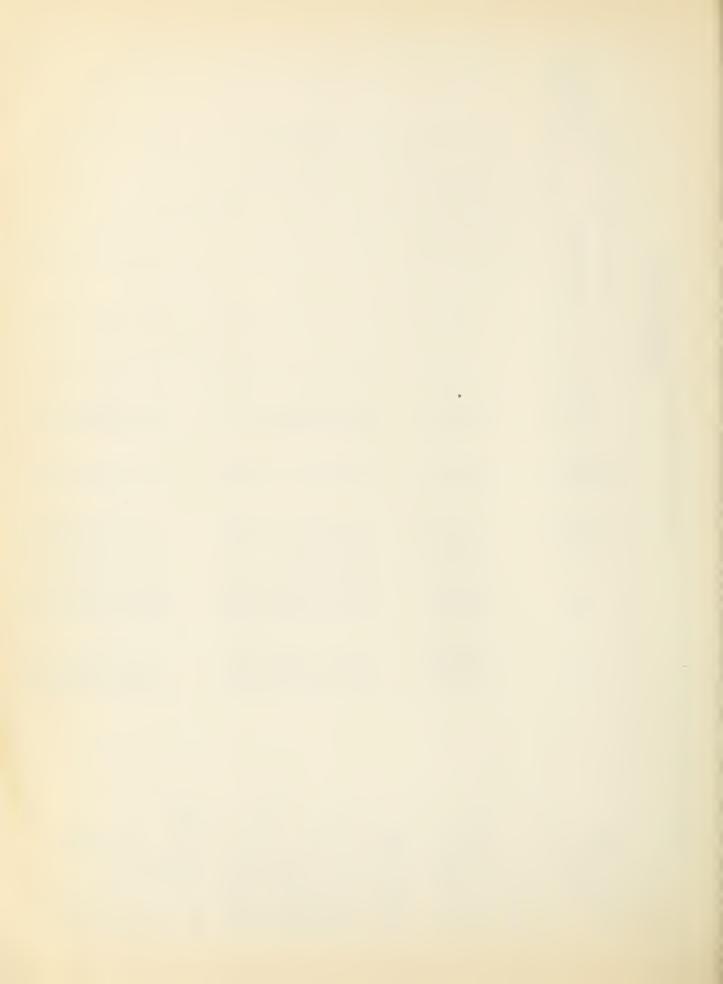
PRECIPITATION DATA FOR MAY 1, 1952 NORTHERN WYOMING

			1951				1952	dy magnet in galactics of the control of the contro	1952	money one of Orders desire with the or of agree	*	
	Elev-	Pre	Precipitation	ion					Dept. from	Accum.	um. Precip.	ip.
Station	ation	Octo	Nov.	Dec	Jano	Feb	Mar	Apr.	Norms 1	951	10	ept.
								1	de delenia de mante de la companya d			
BIG HORN RIVER BASIN												
Cody	4984	1.14	0.39	0.30	0.30	0,35	0.51	0.59	-0。144	3.58	3.72	-0°14
Lovell	3825	1,09	0,12	0.39	0,22	0.17	0.41	0.56	-0°0 /	2,96	2,84	+0°748
Worland	190†/	0.31	0°09	0,10	0.41	0.19	0.17	1,21	+0.21	2,48	3,35	-0°87
Sunshine 4 SW	0269	1,82	0,16	0.18	0.07	0.94	0,51				7.75	
Thermopolis	4.336	0.93	0,28	0,29	0.13	0.13	0,20	1,62	0700+	4.58	5,88	-1.30
Riverton	4994	19.0	60°0	0,25	0.05	2470	0.47	1,23	70°0-	3.23	14.03	-0°80
Dubois	6917	0.24	0.12	0.53	0.35	0.38	0.23	1,22	+0.17	3.07	7000	66.0-
Average		ρα°0 	0,18	62.0	172.0	24.0	0.55	J.0°T	-0.55	2.51	25.17	12.01.
TONGIE RIVER BASIN						at Wheele or no.					71 MP	
Sheridan	1,021	1.37	0.15	99,0	0.15	1.39	0.85	0.80	*1.12	5.39	6.97	-1.58
POWDER RIVER BASIN						NA WORLD STREET	e companior to videom					
Arvada	3680	0.58	0.18	0,45	0.05	0.50	0.61	0.02	1.24	3.29	1,62	-1.33
Wetz Ranch	5280	ە. ئى	0,11	0.19	0,12	0.30	0.73	1.13	97.0+	3.53	5.05	-1.52
Gillette	242	1,06	0.50	0,40	0,40	0.50	0.85	0.15	-1,60	3,86	6.21	-2.35
Nine Mile Creek	2000	64.0	0.35	0,18	0.30	0.77	0.88				7.98	
Mid West	74850	0,41	0,16	0.78	0.03	99.0	0.70	0.36	-1.33	3.10	60.9	-2.99
Average		0,70	0.26	0,10	0.15	97,0	0.72	2 [†] 7°0	-1,18	3.44	5.39	-1.95



MONTANA SNOW SURVEYS APRIL 15, 1952

Y	data e 15	-		1 11			11111
le s)	Average Apr.	Avg. %Avg.					
nt (Inch		19/ ₄₈ A		37.7	~		
Water Content (Inches)	Past Records	1949		51.0	· · · · · ·	17.0	25.22
Wate	Past 1	1950	~		ring. Wing prins game game de		8 3 6 8 <u>9</u> 5 1 8 1 8 2 8 8 1
		1951					
	Apr. 15	1952		146.0 39.7 18.3 10.0		116.8 117.6 125.0 125.0 125.0 125.0 125.0 125.0	14 16.00 16.00 16.00 16.00
Snow	Depth (In.)	1952		101 97 45 95		15 106 106 13 13 15 16	584881 884881
Date	of Survey	1952		Apr. 15 Apr. 15 Apr. 15 Apr. 15		77. 14. 15. 16. 16. 16. 16. 16. 16. 16. 16. 16. 16	Apr. 11, Apr. 21 Apr. 21 Apr. 10 Apr. 15
	Elev.			6000 Ap 6800 Ap 6000 Ap 1,800 Ap		5600 Apr 7000 Apr 6500 Apr 6500 Apr 3580 Apr 7000 Apr 5000 Apr 5000 Apr	1,200 Apr 1,300 Apr 7,100 Apr 7,400 Apr 6250 Apr
	No.			15-B-1 (14-A-1 (15-A-1 (16-A-1)		1542 1545 1582 1582 1581 1581 1581 1585 15814 14815	1386 1 1386 1 1362 1 1361 1
						Lake Lake	⊭I
A BASIN	E BASIN D	COURSE **	н	Baree Mountain Blue Bird Basin Red Mountain Smith Creek	D RIVER	Desert Mountain Marias Pass Spotted Bear Mt. Strawberry Lake Trinkus Lake Trout Lake Twin Greeks Upper Holland La Basin Creek	Coyote Hill Rainy Lake Slide Rock Mt. Stuart Mt. #1 Tenmile, Lower
COLUMBIA		SNOW CO	KOOTENAI	Baree Mounta Blue Bird Ba Red Mountain Smith Greek	FLATHEAD	Desert Mounts Marias Pass Spotted Bear Strawberry Lal Trinkus Lake Trout Lake Twin Creeks Upper Holland Basin Creek Holbrook	Coyote Hill Rainy Lake Slide Rock Mt. Stuart Mt. #1 Tenmile, Lower



MONTANA SNOW STRVEYS APRIL 15, 1952

:	× 0		4 03		Q	CJ.	CV				3	Q	Q	N		7	
		Average data Apr. 15	%AVE.		l	-	1 1			1 1	109	-	1	1 1		142	
1.	ches)	Avera Ap	Avge		1.					1	16.2	1	!		NO	23.0 22.8	
	ent (1)		1948		1	t 1				i	;	1	-	!	FOR FUBLICATION	23.0	
	Water Content (Inches,	Past Records	1949		51.0	9°62				ł	1,2	19,1	25.2	30.0	FOR PU	29.0	
107	War	Past F	1950		i	-	# # 1 1 1 1			1	16.7		!	1	O LATE	30.0	
			1951		1					1 1 2	1	1 1	1	1	SIVED TO	28.3	data data data data
		Apr. 15	1952		46.0	37.9	70 70 70 70 70	`		29.0	17.7	22.1	36.8	25.2	ENTS RECE	32,4	April 15 April 15 April 15 April 15
5	Dooth	ueptn (in.)	1952		101	96	111 85	١.		72	<u>‡</u>	23	69	29	ASUREM	83	shown with shown with shown with
0.400	Date Of	Survey	1952		Apr.15	Apr . 10	Apr.10 Apr.15	•		Apr.15	Apr. 15	Apr.16	Apr. 10	Apr.10	CORRECTIONS AND MEASUREMENTS RECEIVED TOO LATE	Mar. 30	10,
		Elev.			6000		5110			7100	5580	6575	27400	5700	RRECTIO	7100	d April d April d April
		No			15-B-1	15-6-3	15-C-1 16-A-4			1302	1/ - D5	ומיוו	1361	1/cs	APRIL 1, 1952 CC	1302	Measured Measured Measured Measured
ACTINIDITA DACTN	COLUMNIA DASTN	AND AND	SNOW COURSE **	PEND OREILLE	Baree Mountain	Freezout Summit	Mosquito Ridge)	BITTERROOT	Gibbons Pass	Nezperce Camp	Nezperce Pass	Stuart Nt. #1	Packers Weadow		Gibbons Pass	Stuart Mt. #1 Hoodoo Greek Freezeout Summit Packers Weadow



MONTANA SNOW SURVEYS MAY 1, 1952

MISSOURI BASIN DRAINAGE BASIN AND	No.	Elev.	Date of Survey		Snow Depth (In.)	May 1		We te	Water Cont	Weter Content (Inches)	ches) Average	e Data	>> 0 €
SNOW COURSE **			1952		1952	1952	1951	1950	1949	1948	Avgo	S. MAVE.	<u>د</u> ده
JEFFERSON RIVER													
(Rock-Beaverhead)													
Lakeview Ridge	11E3	7400		200	56	10.6	6.4	1	2.4	!	5.9	180	2
Lakeview Canyon	111124	0269	Apr.	200	39	17.9	ಜ್ಞ	1	2.5	1	7.6	191	· 100
*Kilgore	11E12	6200					-						
eek	12E3	0089	May	N	엄	5.6	1	ł	i I	1	í	i	Н
*Blue Ledge Mine (Wise River)	11611	9200					1-2-1			r andre " - Kulto			
Elk Horn	13015	8450	May	8	11	3.8	!	10.7	5.5	8 8	5.5	69	10
MADISON RIVER										Andrew P. Siller consider and a second			
Hebgen West Yellowstone	1155	6550	May	8 1	15	7.5	H C	8.4 10.0	7,7	7.4	200	290	19
21-Mile	1126	7150	May	a	37	16.1	12.5	18,8	12.6	12.6	10.3	157	19
*Big Springs *Island Park	1159	6500 3600											
*Valley View Norris Basin	11E8 10E2	6500	Mev	-	No snow	W			2,57				м
GALLATIN RIVER			•							**************************************			\
Devil's Slide Hood Meadow New World 21-Mile	1004 1003 1001 11E6	8100 6600 6700 7150	May May May	ろせるこ	57	25.6	18.7	24,5	20.3	30.5	21,2	120 60 52 157	97 20
* Adjacent Basin			•	ı	<u>.</u>) }			



MONTANA SNOW SURVEYS MAY 1, 1952

MISSOURI BASIN			Dete	Snow			Wat	er Cont	Water Content (Inches)	ches)		H
DRAINAGE BASIN AND	No	Elev	of Survey	Depth (In.)	Mey 1		Past R	Past Records	A Comment of the Comm	Average	e Data y 1	
SNOW COURSE **	5, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		1952	1952	1952	1951	1950	1949	1948	Avgo	S. MAVE.	s, w
MISSOURI RIVER MAIN STEM										A A STATE OF THE S		
Chessman Reservoir	1205	6200		0	0	3.0	7.8	0	11.6	1,6	1	17
Kings Hill	1001	7950	May 4	25	9,8	12,8	19.6	12,8	1/106	11.7	84	12
Pipestone Pass	1201	7200		a	0.3	6,3	24	1.0	1	2,2	13	13
Stemple Pass	1201	0069		12	7,5	11.2	14,2	6,3	8,3	6.0	20	18
Termile, Lower	12C2	6250		0	000	5.1	8 0,0	0,2	2,1	2,0	1 6	17
Termile, Widdle	1203	0099		2	107	11,2	16.3	3,5	8,0	6.7	17	18
Tenmile, Upper (Marias River)	12 c /t	9000		16	ก้	1/4,8	18.8	7.1	9: 17	10.2	28	17
Maries Pass	1235	5250	Apr 29	td.	10.5	19.7	26.3	12,1	15.3	6.6	106	18
UPPER YELLOWSTONE					WYORTNG	5]			ngera a sassa aga tara s			
Canyon	10E3	7750	Apr 30	72.	151	1	17.02	7.67	10,8	11.6	115	90
Lake Camp	10E/1	7850	Apr 50 Apr 30	걸었	70,0	ั้ง เกิดใ	11,9	7.6	0	7 17	961	0 6
Lodgepole, Wyoming	9E1	8200	Apr 30	21	6.9	17,8	8	6.6	11.7	8,2	89	15
Lupine	10E1	7300	Apr 30		Snow	-						ĩ
*Lewis Lake Divide	10E9	7000	May 1	90	7/7/20	70°05	516.	47.1	6°0t7	45.7	101	34
*Tom Thumb Summit	1087	20067								- man		
* Adjacent basin												



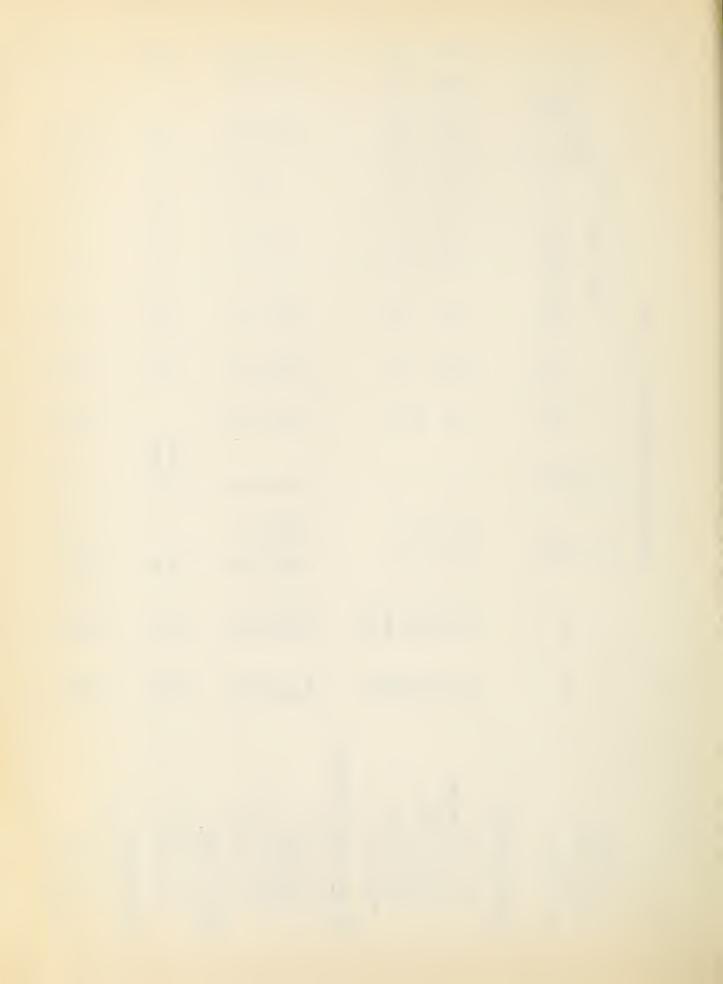
WYCMING SNOW SURVEYS MAY 1, 1952

>	0 6 5			17	1	- -	12	11	たたた	2	0-		Milliogers .
	rage data	%AVE.		115	2	1 8	8	134	103	185	119	Bergelein der Bergelein werde der William von der Bergelein der verschaft der Bergelein der verschaft der Bergelein der Verschaft der Verschaf	ritroju nasari
nche s)	Average	Avg.		25.3	6,9	22,2	2,1	33.5	15.2 8.0 26.0	7.0	7.8	par managa no de Ross (1988)	The second second
tent (I		1948		29.5	7.1	8 B	3.0	23.5	111	0	1		
Water Content (Inches	Records	1949		25.5	2,1	0.0	0	0.0	10.6	5.4	0,0		
Wa	Past]	1950		34,2	11.7	26.2	5.0	6.2	17,2 10.6 30.3	12.7	10.3	0	
F		1961		34.2	11.6	28,5	0,9	7.04	18,6 11,5 25,8	8,1	0°0		1-9
	May 1	1952		29,1	เก็	2,2		5.3	13.5	12,9	و ه در ا		-trans
Snow	Depth (In.)	1952		63	· -	<u>0</u> 2	No Snow	13 68	15 20 75 75	38	28	ŷ	
Date	of Survey	1952		Apr.29	May 1	Apr. 50	Apr. 29	Apr.24	Apr.28 Apr.28 Apr.25	Apr.25	Apr. 27	Cy state	
	Elev.			9200	8750	8700 9500	7500	9600	10000 9500 10000	9500	9000	9400 7900 8500 8600 6775	
	No		(mec	10F2 9F6	9F2	られる	OF1	9F5 9F1	9F10 9F9 9G2	963	9F11	9F12 10F5 10F5	
MISSOURI BASIN	DRAINAGE BASIN AND	SNOW COURSE **	LOWER YELLOWSTONE (Wind River - above Div. Dam)	Brooks Lake #5 Burroughs Creek	Du Noir	Geyser Creek Little Warm	Sheridan Creek	T-Cross Ranch *Togwotee Pass	Dinwoodie Dry Creek Hobbs Park	Mosquito Park	St. Lawrence	*Kendall *Loomis Park *Black Rock *Yellow Jacket	* Adjacent Basin



WYCMING SNOW SURVEYS, MAY 1, 1952

>10 65 10				13	55		125 th		15		16
Water Content (Inches)		. %Avg.		877	161		88 89 99 80 89 89		11		71
		Avg.		12°6 14°0	7.2		6.57 6.57 6.51 6.51	. 9 <u> </u>	8.3		13.6
		1948		9°71	8.0 14.6		5.5		14.1		3.9
		1949		10.8	2.1		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		<u></u> 11.5		0.0
		1950		18.4 23.1	7.6		1000 8000 1000 1000 1000		5.6		16.0
		1951		12.6	7.3		00000 00000 00000	Thinks WY To P & Nachol	000	***	15.6
	May 1 1952			20.5	11.6		701VV 20180		**		0.00
Snow	Depth (In.)	1952		75 149	31 48		128404 14104		No Snow No Snow		27 0 18
Date	of Survey	1952		Apr. 26 Apr. 26	Apr. 26 Apr. 26		Apr. 28 Apr. 30 May 2 Apr. 30 May 1		May 1		May 3
	Elev.			9500	8500 8900 8700		8000 8700 8200 8800		7000		7900
	No.			862 864	861 863 965 966		9F8 8F1 9E7 7E3		10E6 10E5		754 752 755
MISSOURI BASIN	DRAINAGE BASIN AND	SNOW COURSE **	POPO AGIE RIVER	Blue Ridge Grannier Meadows	Sawmill Glade South Pass Wulligen Park *Dutch Joe	BIG HORN RIVER (Wyoming)	Beavers Mill Owl Creek Wood River Tensleep R. S. Ranger Creek	SHOSHONE RIVER	East Entrance Sylvan Pass	TONGUE RIVER	Burgess R. S. Big Goose Dome Lake * Adjacent Basin



WYOMING SNOW SURVEYS MAY 1, 1952

×	0 0 5	4 W					16	2	<u></u>	Q		6
The second secon	Average Data	%AVE.	-				- C	1	ì	8 8	8	90 000 000
ches)	Avera	Avgo	-	a	 		n O	し。ノ	8 0	8	0°9	8
ent (In		1948	MAN THE RESERVE AND THE PERSON OF THE PERSON				7	3	ę 1	3	å	58 Cab
Water Content (Inches)	Past Records	1949					C		\$	8 8	1	\$ 8
Wat	Past	1950				come operator duranteed	· · · ·	2	g 6	6,2	9.5	3
english de distriction de l'approprie		1951			angunar ,	T Y Y SHOW AND	0	/ot	3	8	7.7	10 0
A remainders to place a second	May 1	1952				n-an-a-an-a	0	101	5,0	3,2	7.1	-
Snow	Depth (In.)	1952					O	`	22	12	27	Trace
Date	of Survey	1952					Marr	4 6 100	May 3	May 3	May 1	May 3
	Elev						AEOO		8500	8700	0026	2000
	No						(RE)	710	7E8	7E6	7E7	
MISSOURI BASIN	DRAINAGE BASIN AND	SNOW COURSE **				POWDER RIVER	S. S	TIBACA TACC	North Powder	Soldier Park	Muddy Pass	Red Fork



MONTANA SNOW SURVEYS MAY 1, 1952

>-		N P		r dar vils	16	77	0								•			
	Average Data	%AVE.		· · · · · · · · · · · · · · · · · · ·	75	%	710	1	1	1	83	55	63	1	る	99	93	1
hes)	Average	Avgo			1,40.0	56,1	5.8	2,3	1	1	14.8	13,1	15.5	1,5	3/4.8	10.9	16,6	2,1
nt (Inc		1948	Manuscripto April November 1		47.2	51,2	1	3.9	1	1	18.5	12.1	16.2	ဆ့	i	0.0	20.0	4,2
Water Content (Inches)	Past Records	1949			51.1	56.3	;	0.0	i	1	11.7	10.2	16.3	ď	70.5	7.9	18.4	0.0
Wate	Past R	1950	,		68.1	53.7	17,1	707	1	ł	18,9	16.7	31.1	3,2	55.8	16.6	24,5	8,3
		1951			1,0,4	1/10-1/1	8,6	2,1	11.1	3	13.6	19.1	19.9	3.1	38.7	12.9	19.7	0.0
	May 1	1952	- Address - House Ball State S	• And RESOURCE (C.) - O. (a)	37.6	34.9	20,00	0.0	0.0	16.3	12,3	7.3	4"6	Snow	32.6	7,2	15,5	
Snow	Depth (In.)	1952			72	23	2	8	8	35	77	21	23		65	17	36	No Sn
Date	of Survey	1952											May 1					
	Elev.				0009	9089	5000	3500	5100	2600	3000	5000	0009	7200	71800	5190	5100	3500
	No.				15B1	באלנ	1/A/L	Canada	Cenada	Canada	Canada	Canada	15A1	Canada	16A1	Canada	Canada	Canada
COLUMBIA BASIN	DRAINAGE BASIN AND	SNOW COURSE **		KOOTENAI	Baree Mountain	Blue Bird	Brush Creek	Fernie	New Fernie	Fernie Ridge	Ferguson	Marble Canyon	Red Mt., Montana	Sinclair Pass	Smith Creek	Sullivan Mine	Gray Creek	Sandon



MONTANA SNOW SURVEYS MAY 1, 1952

COLUMBIA BASIN			Date	Snow		W	Water Cox	Content (Inches)	(nches)		>
DRAINAGE BASIN AND	No	Elev.	of Survey	Depth (In.) May 1			Records		Average	e Data	O as 1
SNOW COURSE **			1952	1952 1952	1951	1950	1949	1948	Avg.	%AVE.	ц ю
					-						
FLATHEAD RIVER									articing of manager v		
Blue Bird	1/A1	6800	•	73 34.9	170-171	53.7	36.3	51.2	36.1	26	47
Basin Creek	13814	5000		Snow	2.1	8 8	8	1	i i	8	Ω.
Big Creek	13B3	6750			1,8,0	0,09	£ 1	8	1,11,6	23	7
Brush Creek	14A1	5000	Apr. 30	7 2.3	8.6	17.1		1	5,8	01	0
Cattle Queen	13A1	700		Snov	T T T T T T T T T T						
Coyote Hill	13B11	1200		Snow							-
Desert Mountain	13A2	2600	æ		24.8	21.7	10,8	14.9	10,2	78	16
Goat Mountain											
Hell Rosring Div.	14A3	5700	Apr. 29	52 25.3		37.4	26.7	51.0	26.7	26	11
Holbrook	14B13	1,530	May 1	Snow					***************************************		N
Kishenehn	1/A2	1,300							with an 1		
Limestone Pass	13B8	2600		68 33.0	140.3	29.0	1	1 1	3/1.01	26	2
Logan Creek	14A5	7200	_	Snow	1,0	7.1	1	3.4	7.7	8	77
Marias Pass	13A5	5250			19.7	26,3	12,1	15.3	6.6	106	18
North Fork Jocko	13B7	6330			4.5 44	9%65	100	1	35.6	83	N
Quintonkon	13A13	3800			7,06	ì	8	E E	1	1	N
Rainy Lake	13B6	7200		Snow	000	10,2	€⊣	000	9	9	9
Strawberry Lake	13B10	6500			27.9	58.8	35.4	1 1	7007	88	
Trinkus Lake	13B1	6500			32.9	53.1	36.5	ł	1,0 B	8	7
Trout Lake	13A12	2600	Apr. 30		8	20.2	1 1	14.9	1	I	n
Twin Creeks	13B11	3530		Show	000	1	8	1	9	l l	N
Upper Holland Lake	13B5	2000			33.5	8	1	1	E	í	C)
Snow Lab #16	1349	5200	May I	35 2504	22.0	28.0	0°21	17.9	20,7	7/4	٠.0



MONTANA SNOW SURVEYS MAY 1, 1952

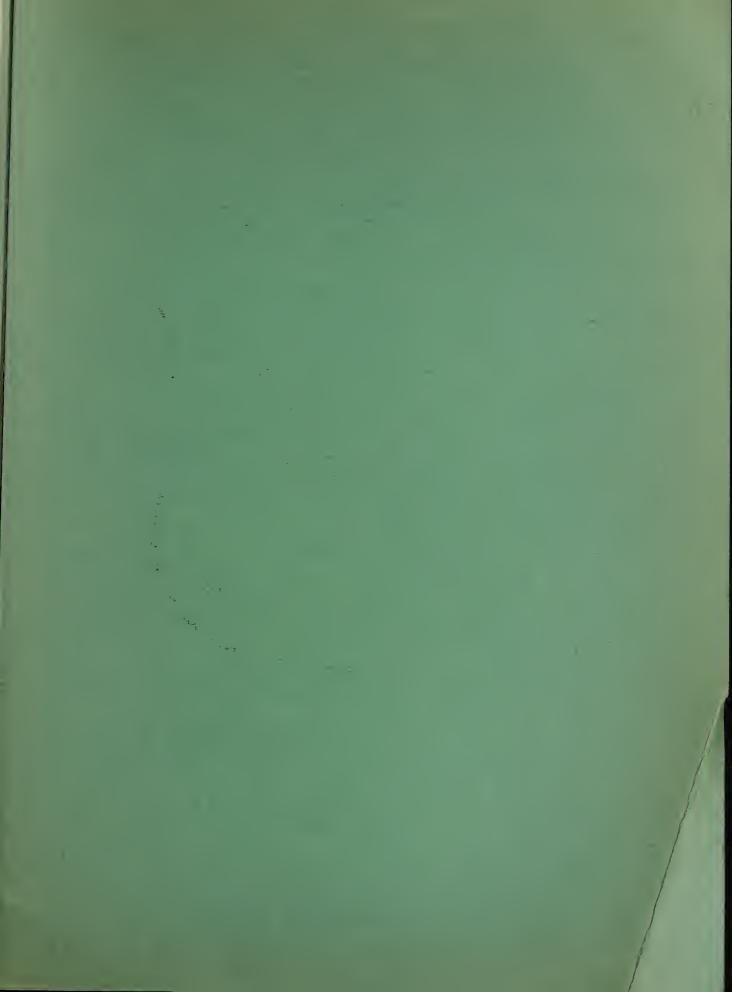
COLUMBIA BASIN			Date	Snow		Wat	Water Content (Inches)	ent (In	(ches)		
DRAINAGE BASIN AND	No.	Eleva	of Survey	Depth (In.) May]		Past	Records		Average May	Average data	D & \$
SNOW COURSE **			1952	1952 1952	1951	, 1950	1949	19/18	Avgo	%AVE &	ι Ω
UPPER CLARK FORK									· =• · · · · · ·		an
Coyote Hill	13B11	1,200	May 1	No Snow	CON AND	9	1	i	i	ŀ	
Chessman Res.	12 c 5	6200	May 1	No Snow	3.0	7,8	000	7,06	1.7	å å	17
North Fork Jocko	13B7	6330	Apr , 29	71 35.1	43.4	9°65	1	i i	35.6	66	. IV
stone Pass	1201	7200	May 2			2,2	1,0	ł	20	15	13
Rainy Lake	13B6	7500	May 1	Snow							
Slide Rock Mt.	1302	7100	May 5			ì	12,2	1	10,5	122	12
Stemple Pass	1361	0069	May 1		11,2	14,2	6,3	8.3	0.9	20	18
Stuart Mt. #1	1301	7400	Apre 30			5	25,2	31,1	26,2	119	7
Tenmile, Lower	1202	6250	Nay 3			0° 8	0.2	2,1	2,0	8 8	17
Tenmile, Widdle	1203	6800	May 3	5 1.7	11.2	16.3	3.5	8,9	6.7	17	18
Tenmile, Upper	12C4	8000	May 3			18,8	7.1	14.6	10,2	58	17
* 19 Meadows	15B10	5000							to make and		
*Above burke		0014									
*Lookout	15B2	5250	May 1	54 25,9	27.5	45.1	21.4	34.8	22,4	115	16
*Above Roland	15B7	1,350									
*Below Roland	15B6	3770									
*Sunset	15B9	2600									
Adjacent Basin					gonoma				-dodge		

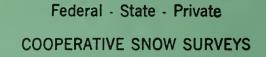


MONTANA SHOW SURVEYS MAY 1, 1952

SOLUMBIA BASIN			Date	Snow			Wate	Water Content (Inches)	nt (Inc	he s)		>-
DRAINAGE BASIN AND	No.	Elev.	of Survey	Depth (In.)	May 1		Past R	ecords		Averag	age Data May 1	OD one is
SNOW COURSE **			1952	1952	1952	1951	1950	19/19	1948	Avg	%Avg.	ω L
BITTERROOT												
Gibbons Pass	1302	7100		7+7	21,8	23.6	28.3	22,9	21.3	19.6	111	17
Nezperce Camp	1/ ₁ D2	5580		ထ	7.0	4.0	13,1	0.0	7.8	4.04	91	97
Nezperce Pass	ומלו	6575		88	12,2	13.3	18.6	12,9	15,1	9.6	127	16
Stuart Mt. #1	1301	2700	Apr. 30	61	31,1	1	ž B	22,2	51.1	26,2	119	7
*Moose Creek	13016	6200										
*Kit Carson	14,03	700								m. m		
*Savage Pass	17 [†] C [†]	0009	•	84	25.3	ŀ	1	30.9	10	21,1	120	0
*Powell Pasture	1503	3700	Apr. 30	4	2,3	ì	i	9.8	0.9	6.3	37	10
*Packers Meadow	17tcs	5700	Apr ,28	22	12.3	7.9	24.3	24.7	21.9	13.1	75	16
PEND ORIELLE												
Baree Mt.	13B1	0009	Apr. 30	72	37.6	4004	68,1	51.1	47,2	0.01	な	16
Freezeout Summit	1503	2000	May 1	69	55.1	1	į	36.3	!	22,0	150	15
Hoodoo Creek	1361	9500	May 1	92	38.6	1 .	1	1.	1 .	36.6	106	Η.
Mosquito Ridge	16 A 4	2600	Apr. 29	55	27.9	26.8	74.0	34.1	34°6	28,1	8	#

* Adjacent Basin





Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"